

Name : _____

Score : _____

Teacher : _____

Date : _____

Find Tangent Lines

Find the equation of the tangent line at the given point. Round to the nearest ten-thousandth.

1) $y = \frac{-x - 1}{x^3 - 7x + 6}$, at $(-1, 0)$

2) $y = x^2 + 4x$, at $(-1, -3)$

3) $y = \frac{x - 2}{x^3 - 2x^2 - 16x + 32}$, at $(-2, -0.0833)$

4) $y = \cos(x^2 + 7x + 10)$, at $(\frac{-3\pi}{4}, 0.5884)$

5) $y = \cos(x^2 + x - 6)$, at $(2\pi, -0.4721)$

6) $y = 2^{(-x - 2)}$, at $(2, 0.0625)$

7) $y = e^{(-x + 2)}$, at $(1, 2.7183)$

8) $y = x^3 - 3x^2 - 6x + 8$, at $(-1, 10)$



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Find Tangent Lines

Find the equation of the tangent line at the given point. Round to the nearest ten-thousandth.

1) $y = \frac{-x - 1}{x^3 - 7x + 6}$, at $(-1, 0)$

$$y = -0.0833x - 0.0833$$

2) $y = x^2 + 4x$, at $(-1, -3)$

$$y = 2x - 1$$

3) $y = \frac{x - 2}{x^3 - 2x^2 - 16x + 32}$, at $(-2, -0.0833)$

$$y = 0.0278x - 0.0278$$

4) $y = \cos(x^2 + 7x + 10)$, at $(\frac{-3\pi}{4}, 0.5884)$

$$y = 1.8497x + 4.9466$$

5) $y = \cos(x^2 + x - 6)$, at $(2\pi, -0.4721)$

$$y = -11.9592x + 74.6699$$

6) $y = 2^{(-x - 2)}$, at $(2, 0.0625)$

$$y = -0.0625x + 0.1875$$

7) $y = e^{(-x + 2)}$, at $(1, 2.7183)$

$$y = -2.7183x + 5.4366$$

8) $y = x^3 - 3x^2 - 6x + 8$, at $(-1, 10)$

$$y = 3x + 13$$

